



Part 1 - GENERAL

Scope - The vent window system shall be _____ series as manufactured by METRO ALUMINUM Products Ltd. Supply and install aluminum framing, as described on the architectural drawings and as specified herein.

Work Not Included - See: Specifier's lists of excluded items; Items furnished but not installed and/or Items installed but not furnished.

Related Work Specified Elsewhere - See: Specifier's lists and related Sections.

Design & Performance Requirements - Window fixed and operable assemblies shall fully comply with the applicable standard specifications as described in Section 10 - Test requirements of CAN/CSA-A440-M90 - Windows. (Specifier's selection).

Submittals - Shop Drawings & Samples - Submit all documentation and samples for review by Consultant at one time, prior to fabrication of curtain wall products.

Quality Assurance - Provide all necessary information to show that all involved products meet or exceed the requirements of these specifications.

Delivery, Storage and Handling - Deliver, store, handle, protect and schedule materials and products so as to avoid any damage. Follow recommendations of AAMA CW-10 "Care and Handling of Architectural Aluminum from Shop to Site" and others as applicable.

Part 2 - PRODUCTS

Materials - All materials to meet the applicable minimum design and specifications requirements. Any defects impairing strength, durability or appearance are not acceptable. Extruded aluminum shall be AA 6063 T6 alloy and temper - $F_y = 110$ MPa (16 KSI) minimum. Sufficient strength and size assembly and anchoring shall be made of corrosion-resistant and compatible material such as cadmium or zinc plated carbon steel or stainless steel. Separate incompatible materials and prevent galvanic action (electrolytic corrosion). Structurally adequate anchoring metal brackets shall be anticorrosive painted. Conventional wet-dry/dry-wet/dry-dry, inside/outside glazing method shall be applicable (Specifier's selection). Gasketing to utilize: standard glazing butyl tape completed with hard extruded shim and interior dense gasket extruded from Neoprene, EPDM or other equal material, as required. Gasket profile shall be designed and sized to uniformly fit tight and properly seal glass-metal interfacing. Acceptable gasket compression range to be 0.7 to 1.7 kN/m (4 - 10 lbs/in). Glass setting to be compatible with glass unit seals and/or other parts involved as required.

System Description - Framing System shall be 200, 200T - non-thermally broken/uninsulated (thermally broken/insulated - T), for single glass (sealed insulating glass units) METRO Series - Specifier selection - as manufactured by METRO ALUMINUM Products Ltd. and compatible with 250, 350 and 450 Series window systems, and 2400/2500 curtain wall systems.

Where applicable, thermal break shall be polyurethane poured-in resin type.

Glass perimeter retention, for specified glazing methods, shall be achieved by glazing shimmed tape/inorganic rubber gasket and glazing stop profile c/w inorganic rubber gasket. Glass hard bite to be 12.7 mm (0.5") minimum. Whenever substitute/alternative products are considered, supporting data to be submitted ten (10) days prior to bid date to allow for valid comparison. Approval of alternates to be confirmed in advance of bid closing by addendum only.

Hardware - Operable vents should be manufactured as Top-Hung-Open-Out (THOO), Side-Hung-Open-Out (SHOO), Top-Hung-Open-In (THOI), Side-Hung-Open-In (SHOI) - Specifier's selection. Friction arms, aluminum hinges, cam handles, understay arms, or others as required and/or applicable - Specifier's selection.

Fabrication - Extruded profiles for fixed frame and operable vent shall be accurately fabricated and assembled and sealed to provide air/water tight fit hairline joints only. Fastening shall allow for permanent true and square set of frame elements. Assembly shall utilize concealed screws only. Properly sealed frame assembly interfacing mitre and butt joints shall result in uninterrupted continuity of air barrier and compartmentization. Frame assemblies shall be free of warp. No exposed fasteners are permitted. Selected operable vent hardware to be compatible with window framing. Sill and head flashing shall be designed and fabricated to suit site conditions as required.

Finish - All exposed surfaces shall be finished as specified. The finish, as per AAM designation, shall be (Specifier's selection):

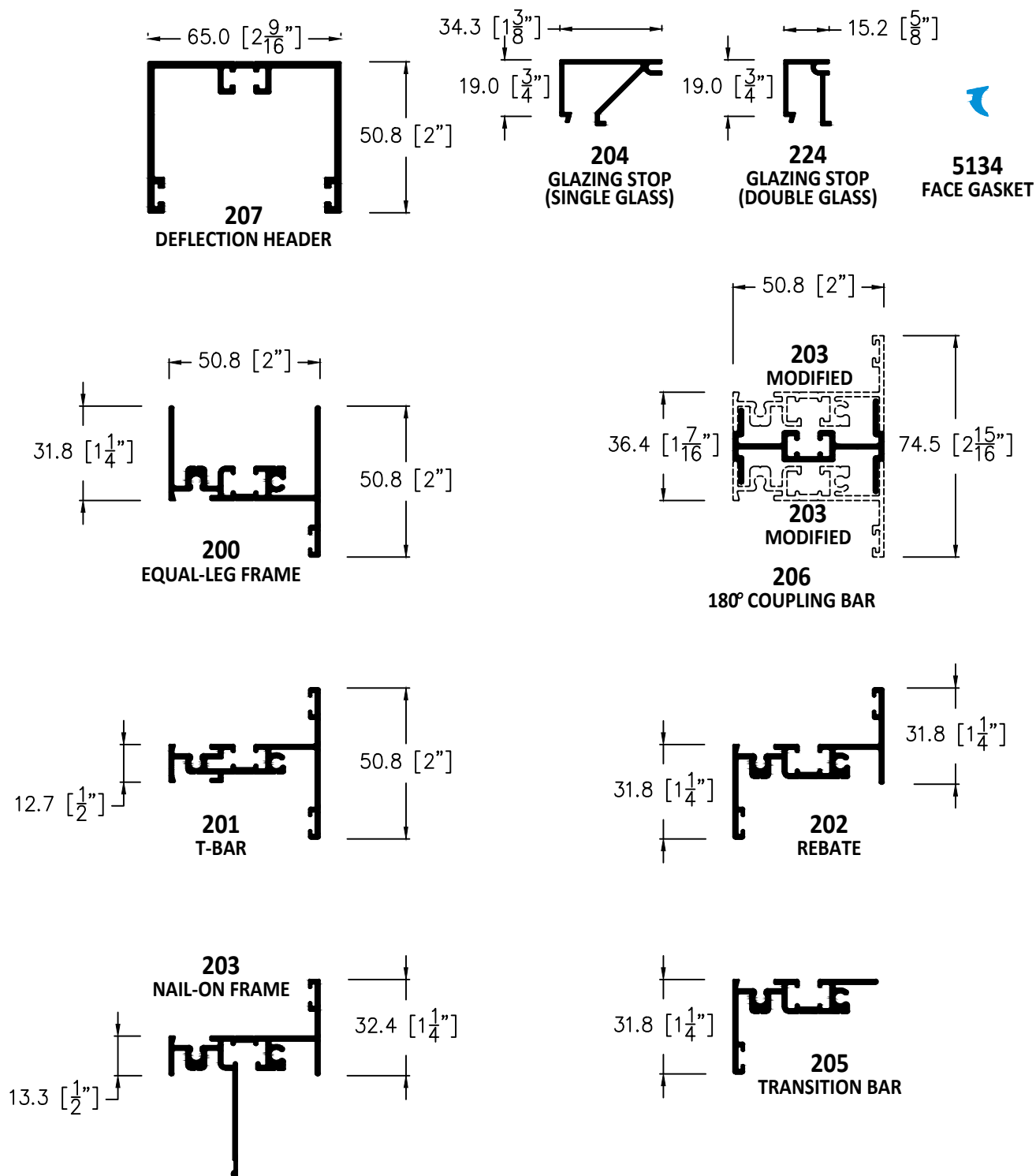
Standard clear anodizing to AA - M12C22A31
Standard perma bronze to AA - M12C22A44
Standard black anodizing to AA - M10C21A44
Duracron acrylic enamel to AA - M12C4XR1X
Custom paint qualities and colors - Specifier's selection.

Part 3 - EXECUTION

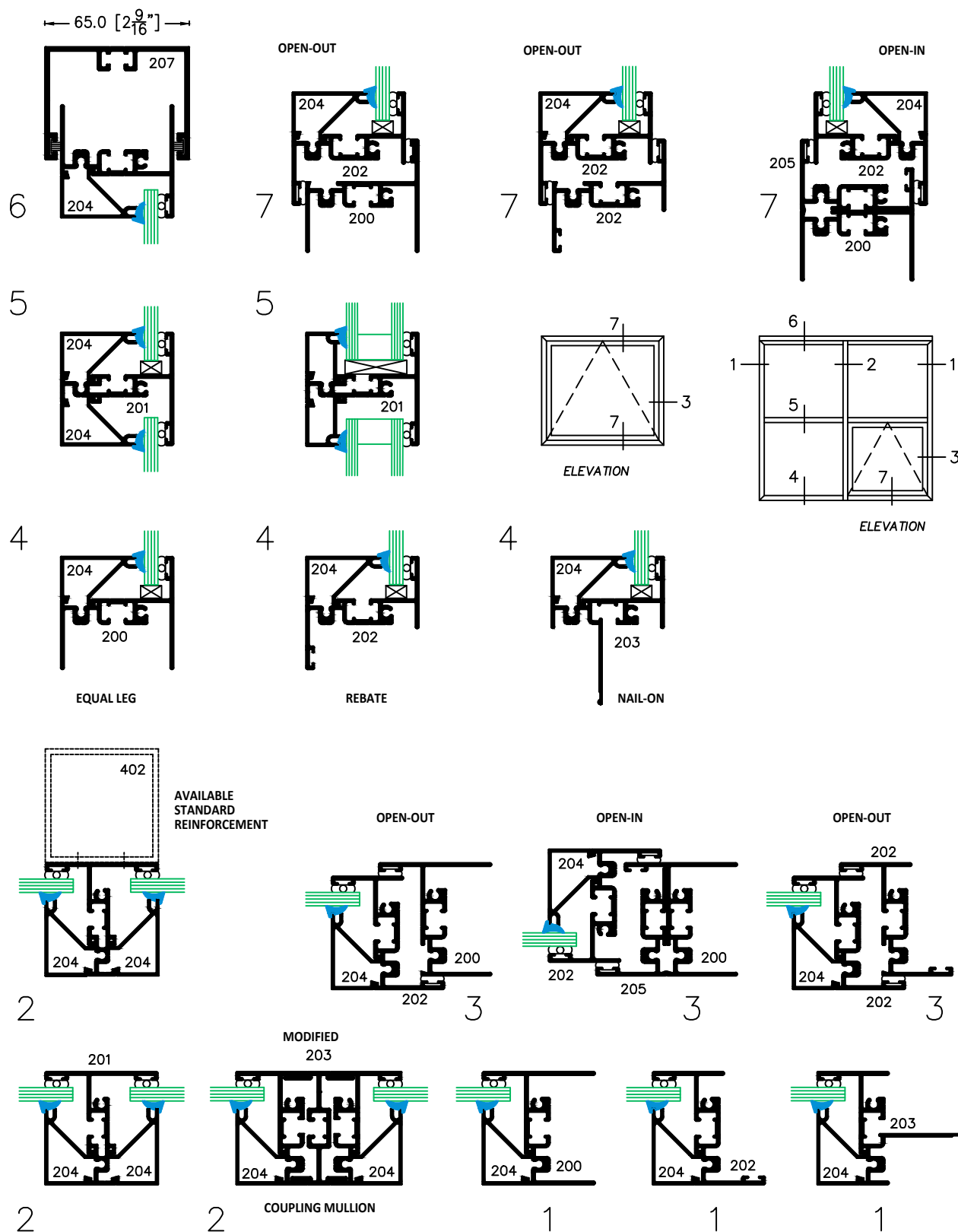
Installation - Anchoring shall suit perimeter conditions of rough openings and seals as required. Prefabricated/preglazed framing to be installed at prepared openings, at correct locations as shown on drawings, set level, plumb, square and aligned with other work in accordance with manufacturer's instructions, approved shop and erection drawings. Perimeter joints to be sealed/caulked as specified and detailed to ensure weathertight assembly.

Protection and Cleaning - Work to be protected from damage during and after installation. Consult with manufacturer and installer to determine appropriate protective measures. The General Contractor shall be responsible for protection during construction and for final cleaning. After installation, aluminum work and glass to be cleaned according to instructions/manuals provided by product manufacturers and glaziers. Use appropriate cleaning materials and methods. Do not scratch or damage glass or finishes.

COMPONENTS



DETAILS





VFH-08/10/12/16/20/24
4 BAR FRICTION HINGE



VEH-10/12/16
EGRESS FRICTION HINGE



VBH-02
VENT BUTT HINGE



VBH-02 BP
VENT BUTT HINGE BLACK



VT-100/101/104
STANDARD CAM HANDLES AND STRIKE



VT-102/103/104
RING CAM HANDLE AND STRIKE



VT-200/201
INSWING CAM HANDLE



VT-202/203/204
INSWING RING CAM HANDLE AND STRIKE



VT-220
POLE EYE



VT-206/221
INSWING TRANSOM CATCH & POLE HOOK



VT-341
SASH FRICTION ADJUSTER



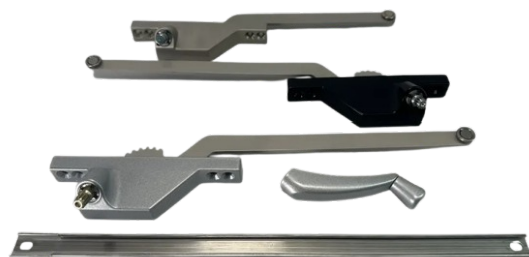
VT-351
UNDER SCREEN PUSH BAR



VT-300
DUAL ARM ROTO OPERATOR



VT-301
PIVOT ROTO TRACK PAIR



VT-310/311
SINGLE ARM ROTO OPERATOR



VT-312
SINGLE ARM ROTO ARM TRACK



VT-302
ROTO CRANK HANDLE



VT-302F
FOLDING ROTO CRANK HANDLE



VT-302T
ROTO T-CRANK HANDLE



VT-320/321
CASEMENT LOCK HANDLE & STRIKE



SCL/CLR
SMALL SCREEN CLIP



SCLSO/CLR
STANDOFF SCREEN CLIP



SOCOR
STANDOFF SCREEN CORNER